

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| In re Application of:       | § |                                 |
| Michael F. Angelo et al.    | § | Confirmation No.: 2632          |
|                             | § |                                 |
| Application No.: 10/764,918 | § | Group Art Unit: 2188            |
|                             | § |                                 |
| Filed: January 26, 2004     | § | Examiner: Doan, Duc T.          |
|                             | § |                                 |
| For: METHOD AND APPARATUS   | § | Atty. Docket: NUHP:0210/FLE/PET |
| FOR OPERATING MULTIPLE      | § | 200314543-1                     |
| SECURITY MODULES            | § |                                 |

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| <u>July 30, 2008</u>   | <u>/Jeffery R. Peterson/</u> |
| Date   | Jeffery R. Peterson          |

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41 AND IN  
RESPONSE TO THE EXAMINER'S ANSWER MAILED MAY 30, 2008**

This Reply Brief is being filed pursuant to 37 C.F.R. § 41.41 and in response to the Examiner's Answer mailed on May 30, 2008. Specifically, this Reply Brief addresses the Examiner's continuing pattern of misinterpretation of instant specification the Challenger reference (U.S. Publication No. 2003/0174842; hereafter "Challenger"), and the Dickinson et al. (U.S. Patent No. 7,187,771 hereafter "Dickinson"), as well as the pending claims. However, in the interest of brevity, Appellants address below only those issues or arguments raised the Examiner's Answer that are particularly noteworthy. In view of Appellants' attempt to avoid repetition in this Reply, Appellants respectfully request that the Board consider Appellants' complete arguments set forth in the previously filed Appeal Brief.

***Claims 8-13 and 14-20 recite patentable subject matter under 35 U.S.C. §101.***

With respect to patentable subject matter under 101, the Examiner essentially stated that the recitations in claims 8 and 14, respectively, of “a detector,” “a device,” “means for detecting” and “means for obtaining” do not constitute patentable subject matter because the claims can be read as covering software. *See* Examiner’s Answer, pages 8-10. Additionally, the Examiner stated that interpreting claims under Section 112, paragraph 6, does not require interpretation that the claims include hardware. *Id.* Further, the Examiner stated that the claims can be interpreted as not including memory or keys and, as such, do not constitute patentable subject matter. Appellants strongly disagree with the Examiner on all points.

In particular, Appellants respectfully assert that the Examiner has failed to give the claims a reasonable interpretation in view of the specification and, furthermore, that the Examiner’s interpretation does not represent an interpretation that one of ordinary skill in the art would give the claims. For example, the Examiner stated, “the claim does not claim have any physical structure being claimed and fails to fall within the statutory of invention.” *Id.* at page 9. However, the Examiner admitted that the claims set forth structures (the detector and the device), but alleged that the claimed structures can be implemented as “software only.” In this regard the Examiner quoted a portion of the specification that states, “the detector 82 and the key obtaining device 84 may be implemented in hardware, software, or any combination thereof.” Appellants respectfully assert, however, interpreting the claims as “software only” is not a reasonable interpretation that one of ordinary skill in the art would give such terms. In particular, one of ordinary skill in the art would clearly understand that the software is not floating in ether, nor is it entirely disembodied from any hardware whatsoever.

Moreover, Appellants respectfully assert that any interpretation that the detector and device are implemented as software would necessarily include the hardware on which the software is implemented, as set forth in the instant specification, as otherwise the recited element would be unable to perform any function set forth in the claims.

Functional software is interrelated with hardware. *See* Manual of Patent Examination Procedure, Section 2106 (stating “when functional descriptive material is recorded on some computer readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized”).

Furthermore, the M.P.E.P. states that computer programs are often recited as part of a claim and U.S.P.T.O. personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine in such a case the claim remains statutory irrespective of the fact that the computer program is included in the claim the same result occurs with a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. *Id.* Accordingly, even if the claim recitations are taken as only software, the claims are clearly statutory as the software is functionally interrelated with the computer medium and because the software is otherwise a part of a statutory manufacture or machine, the claim remains statutory. Accordingly, Appellants respectfully assert that the Examiner is clearly in error with regards to the Section 101 rejection.

As mentioned above, the Examiner also indicated that even given an interpretation under Section 112, paragraph six, the claims do not recite patentable subject matter. In this regard, the Examiner is clearly wrong. Specifically, the Examiner is completely ignoring the structure set forth in the specification that corresponds to the recited features, which clearly runs contrary to precedent with regard to Section 112, paragraph six. *See In re Donaldson*, 29 U.S.P.Q.2d 1845 (Fed. Cir. 1994) (stating “the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination.”); *see also* M.P.E.P. § 2181. When the structure set forth in the specification is taken into consideration with the respective elements recited in the claims, the claims are clearly patentable subject matter. As such, the Examiner is clearly in error on this point.

Additionally, the Examiner stated that the recited subject matter does not necessarily require a memory or keys stored in a memory. *See* Examiner's Answer, pages 9-10. However, Appellants respectfully assert that this is yet another example of the Examiner's failure to interpret the claims in a reasonable manner. Indeed, under the Examiner's erroneous interpretation, the functionality of the claims could not be realized. Indeed, the two structures that the Examiner admitted to be present in the claims, i.e., "a detector" and "a device," would both be unable to perform functions which are expressly recited in the claims. This is unreasonable, not consistent with the specification and, further, not consistent with what one of ordinary skill in the art would understand from the claims. Accordingly, Appellants reiterate the arguments set forth in the Appeal Brief that the claims do recite patentable subject matter under Section 101 and, furthermore, respectfully request reversal of the Examiner's rejection under §101 and allowance the claims.

***Independent claims 1, 8, 14, 21 and 31 are not obvious under Section 103.***

In the Examiner's Answer, the Examiner impermissibly introduced a new ground of rejection with respect to the independent claims. Specifically, the Examiner cited to Dickinson as disclosing elements of the independent claims. *See* Examiner's Answer, pages 11 and 13. Additionally, the Examiner again asserted, in error, that the specification contains admitted prior art. *Id.* at 10-11. Further, the Examiner presents semantical arguments with respect to the term "function." *Id.* at 12-13. In this regard, the Examiner dismissed arguments presented regarding different function performed by a requester and a provider. *Id.* at 14. Appellants strongly disagree with the Examiner in all respects and respectfully request reversal of the Section 103 rejections of claim 1, 8, 14, 21 and 31.

Firstly, with respect to the introduction of a new rejection, in the Examiner's Answer the Examiner cited to Dickinson as disclosing elements of the independent claims. Prior to the Examiner's Answer, however, Dickinson had never been applied to the independent claims. Indeed, Dickinson had solely been applied with respect to

dependent claims 33 and 34. As such, the Examiner's Answer contains a new ground for rejection. This clearly violates the rules regarding appellate procedure before the Board. Accordingly, Appellants respectfully request that the Board not consider the portions of the Examiner's Answer directed to the application of Dickinson to the independent claims. Furthermore, should the Examiner wish to reject the independent claims over Dickinson, Appellants respectfully assert that the proper venue for such an action would be by issuing a new non-final Office Action. Accordingly, should the Examiner wish to maintain the rejection as set forth in the Examiner's Answer, the Examiner should re-open prosecution.

Moreover, even assuming *arguendo* that the Examiner's use of Dickinson were proper, Appellants respectfully assert that Dickinson does not disclose the features that the Examiner attributes to it. In particular, Dickinson does not disclose two security modules in a computer that are configured to perform the same functions. Rather, Dickinson discloses the use of authentication engines that are geographically remote from trust engines of a redundancy module. *See* Dickinson, col. 34, lines 11-19. As such, unlike the instant claims, the Dickinson redundancy module is not in a computer, but rather distributed geographically, contrary to the Examiner's assertions. Accordingly, even if it is assumed to be proper to present Dickinson as new grounds of rejection during an appeal process, Dickinson fails to overcome the deficiencies of Challenger with respect to the independent claims.

Secondly, with respect to admitted prior art, the M.P.E.P. explains, "where the specification identifies work done by another as "prior art," the subject matter so identified is treated as admitted prior art. *In re Nomiya*, 509F.2d 566, 571; 184 U.S.P.Q. 607, 611 (C.C.P.A. 1975) (holding that Applicant's labeling of two figures in the application drawings as prior art to be an admission that what was pictured was prior art relative to Applicant's improvement)." M.P.E.P. § 2131. Contrast this holding with the instant facts wherein the Appellants' specification *expressly states* that the statement *should not be taken as prior art* and it is evident that the discussion which the Examiner

alleges to contain admitted prior art clearly is no admission at all. Rather, it is expressly not an admission of prior art and, thus, cannot be taken as an admission. Indeed, the facts in the instant case are the exact opposite of the fact pattern set forth in *Nomiya* that permits an Examiner to take portions of a specification as being prior art. Accordingly, the Examiner is clearly in error in taking the portion of the instant specification as constituting an admission of prior art.

Additionally, the Examiner asserted that the statement: “statements are to be read...not as an admission of prior art,” is “merely an allegation and overall disclaimer.” *See* Examiner’s Answer, page 11. Further, the Examiner stated, “Appellant fails to provide any specific evident [sic] to support a computer system with two is [sic] not known fact in the art.” *Id.* Appellants take exception to both statements. Specifically, the statement that the discussion is not “an admission of prior art” is no disclaimer at all. No subject matter, term, or anything else has been disclaimed by that statement. Rather, it is simply a statement that the discussion is not an admission of prior art. Additionally, it is not merely an allegation. To the contrary, it is the Examiner who presents mere allegations unsupported by facts in this regard. More particularly, the Examiner has entirely failed to present any piece of prior art that supports the Examiner’s allegation that two security modules within a computer is prior art. In this regard, Appellants respectfully assert that it is not required of the Appellant/Applicant to present evidence that a computer system with two security modules is not a known fact in the art. Rather, it is the Examiner’s express responsibility to search and apply art that discloses claimed elements’ such as two security modules in a computer, for example, or allow the claims. Unfortunately, it has become abundantly clear through the extensive prosecution history of the instant case that the Examiner is simply on a single track to reject the claims despite the abundance of evidence supporting the allowability of the instant claims. Nonetheless, Appellants respectfully assert, in view of the foregoing, that the instant specification does not contain any admission of prior art and, accordingly, Appellants respectfully request reversal of the §103 rejection and allowance of the claims.

Thirdly, the Examiner appears to be presenting a semantical argument with regard to the term “function.” Specifically, the Examiner posits that all security modules perform the same function. Appellants respectfully disagree. In particular, as set forth in the Appeal Brief, the security modules set forth in the Challenger’s reference perform two completely different functions. For example, one security module is configured to collect keys and distribute keys while a second security module is configured to generate keys, provide keys to security modules and access keys stored at the server. *See* Challenger’s paragraphs 11 and 12. Accordingly, the security modules perform *different functions* and the Challenger reference provides no explicit support for the Examiner’s assertions to the contrary. Indeed, the Examiner fails to cite to anything within the Challenger reference or any other reference to support his position. In particular, the Examiner simply states the security modules may act as a client or as a server, however, the Examiner’s allegation is not borne out by the Challenger reference either explicitly or impliedly. Accordingly, for at least this additional reason Appellants respectfully assert that the Examiner’s rejection of the claims under Section 103 is in error and respectfully request withdrawal of the rejection and allowance of the claims.

Furthermore, however, the Examiner asserted that the arguments presented on appeal with regard to the security modules performing different functions are irrelevant because there is not any limitation in the claims describing how the keys are provided, let alone arguing of different acts with the requester and the provider. *See* Examiner’s Answer, page 14. Contrarily, however, as mentioned above, the claims set forth two security modules configured to perform *the same functions*. As such, the claims expressly include elements directly on this point. Furthermore, the Challenger reference fails to disclose such features, as it only disclose two modules in separate computers performing different functions (one acting as a provider and the other as a receiver). Accordingly, the Examiner is again simply wrong and Appellants respectfully request reversal of the §103 rejection and allowance of the independent claims as well as all claims dependent therefrom.

***The rejection of dependent claims 5, 12, 18 and 25 is in error.***

The Examiner argued that Challenger discloses sending “public keys along with validation information.” However, contrary to the Examiner’s assertion, there is nothing in any portion of Challenger cited by the Examiner that discloses sending “public keys along with validation information.” Additionally, Appellants are unaware of any portion of Challenger that discloses such features. Accordingly, Appellants respectfully request reversal of the rejection of claims 5, 12, 18 and 25.

Additionally, however, the Examiner has mischaracterized Appellants initial arguments with respect to these claims by stating that the Appellants argued, “Challenger reference cited by the Examiner does not even mention public keys,” when, in fact, Appellants argued, “the portion of the challenger reference cited by the Examiner does not even mention public keys.” In the Final Office Action, the Examiner only cited to paragraph 31 of Challenger in rejecting claims 5, 12, 18 and 25. Appellants maintain that paragraph 31 is absolutely devoid of any mention of “public keys,” much less sending “public keys along with validation information.” Accordingly, Appellants respectfully request reversal of the rejection of claims 5, 12, 18 and 25.

***Rejection of claim 33 and 34 under §103 is in error.***

With respect to claims 33 and 34, the Examiner reasserted reliance on Dickinson for disclosure of elements recited in the independent claims. In particular, the Examiner stated, “Examiner relies on Dickinson’s for teaching a concept of redundant of security/trust engines so that the overall system can operate if one of the security/trust engine fails (column 5 lines 60-67). Specifically, Dickinson teaches that a trust engine in a server (a computer), column 2, lines 31-42, Dickinson further teaches the server (a computer) trust engine in the one embodiment comprises of several instances of trust engines or in another embodiment comprises a redundancy module (i.e. server/computer comprises a trust module and a redundancy trust module, see Dickinson’s column 3 lines 12-19), such that the overall system can operate if one of the security/trust engine fails (column 5 lines 60-67).” See Examiner’s Answer, pages 14-15. As discussed above, it is



improper for the Examiner to present new grounds for rejection during the appeal process. In this instance, the Examiner has presented a *de facto* new ground for rejection by asserting that a reference previously only cited in rejecting dependent claims now overcomes deficiencies of the art cited against the independent claims. Accordingly, Appellants respectfully assert that the Board should not take the Examiner's assertions into consideration with respect to Dickinson curing the deficiencies of Challenger and the independent claims, as the rejections should be properly presented in a non-final Office Action so that Appellants can have opportunity to fully address the rejection.

Additionally, however, even assuming *arguendo* that the Examiner's use of Dickinson is proper, as discussed above, Dickinson does not cure the deficiencies of Challenger with respect to the independent claims. In particular, Dickinson does not disclose two security modules in a computer that are configured to perform the same functions. Rather, Dickinson discloses the use of authentication engines that are geographically remote from trust engines of a redundancy module. *See* Dickinson, col. 34, lines 11-19. As such, unlike the instant claims, the Dickinson redundancy module is not in a computer, but rather distributed geographically, contrary to the Examiner's assertions. Accordingly, even if it is assumed to be proper to present Dickinson as new grounds of rejection during an appeal process, Dickinson fails to overcome the deficiencies of Challenger with respect to the independent claims.

Moreover, Appellants reiterate arguments set forth in the Appeal Brief that Dickinson does not disclose a first security module accessing data encrypted by the second or other security module if the second or other module fails, as set forth in claims 33 and 34. The Examiner did not address these arguments. As such, for this additional reason, Appellants respectfully assert that claims 33 and 34 are allowable over the cited art and request reversal of the Section 103 rejection and allowance of claims 33 and 34.

**Conclusion**

The foregoing are only reiterative points regarding the reasons why the pending claims are allowable. Appellants rely upon all of the reasons advanced in the Appeal Brief, and respectfully request that the Board carefully review the claims in view of these arguments and indicate the allowability of the claimed subject matter.

Respectfully submitted,

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